



Beneficial Use of Industrial Byproducts as a Fill Material Technical Guidance Document SW-2020-G1

This document clarifies some of the criteria the Kansas Department of Health and Environment (KDHE) will consider before granting approval for use of industrial byproduct as fill material.

Background

K.S.A 65-3402(x) defines industrial waste as “. . .*all solid waste resulting from manufacturing, commercial and industrial processes which is not suitable for discharge to a sanitary sewer or treatment in a community sewage treatment plant or is not beneficially used in a manner that meets the definition of recyclables.*”

K.S.A 65-3402(r) defines recyclables as “. . .*any materials that will be used or reused, or prepared for use or reuse, as an ingredient in an industrial process to make a product, or as an effective substitute for a commercial product.*”

Proposed beneficial uses can vary widely in terms of materials and applications. In some cases, it is not clear how to apply these definitions. This is particularly true for beneficial use of industrial byproducts as a fill material. The use of industrial byproducts as fill material is a commonly proposed beneficial use. This guidance document provides the following clarification of criteria to be considered for approval of industrial byproducts as fill material in addition to other criteria generally considered for beneficial use of industrial byproducts.

Criteria to be Considered for Approval

For the use of an industrial byproduct as a fill material to be considered for approval by KDHE as a beneficial use:

- 1) The fill must be part of a larger engineering project; and
- 2) The industrial byproduct must exhibit at least one engineering property that makes it suitable for the project. Merely being inert will not be considered sufficient for this second requirement.

Examples of projects that may meet the first criterion include mine stabilization projects or engineered embankment fill applications. Specific tests may be required to show that the byproduct meets the second criterion. Such tests will be required on a case-by-case basis as determined by KDHE.

Starting Fill Projects

The application for the beneficial use of industrial byproducts is available on KDHE's website. All applications for fill projects using industrial byproducts require approval from KDHE before the project can commence. A material is only considered an effective substitute for a commercial product, and therefore not a waste, once the associated project has received approval by KDHE in the form of a letter.

For additional information regarding the proper management of solid or hazardous waste in Kansas, you may visit the Bureau of Waste Management website at www.kdheks.gov/waste/ or contact the Bureau at: (785) 296-1600, bwm_web@kdheks.gov, or the address at the top of this document.